

WHAT IS CLAIMED IS:

1. A method of sawing a log into segments of predetermined lengths comprising utilizing dual multi-positional cut-off saws in a bucksawing station with one multi-positional cut-off saw being positioned on an infeed conveyor.
2. A method of sawing a first log of a plurality of logs into segments of predetermined lengths comprising
- 10 a) feeding said plurality of logs end to end in a direction parallel to the axis of said logs on a first input log-feeding means;
 - b) transferring said first log from said first log-feeding means onto a second log-feeding means aligned collinearly with said first log-feeding means;
 - 15 c) successively positioning said first log on said second log-feeding means in a direction parallel to the axis of said first log at said predetermined lengths for sawing;
 - d) sawing said first log at each of said pre-determined lengths to form said segments utilizing first and second movable saws positioned upstream and downstream from said second log-feeding means respectively; and
 - 20 e) moving each said segment after being sawn onto a third output log-feeding means and then away from said second log-feeding means, while continuing to feed subsequent logs in said plurality of logs on said first log-feeding means to said
 - 25 second log-feeding means.
3. The method of claim 1 wherein said first input log-feeding means is tilted to a degree sufficient to roll said log to one side of said log-feeding means.
- 30

BEST AVAILABLE COPY

4. The method of claim 1 wherein said third output log-feeding means is tilted to a degree sufficient to roll said log to one side of said log-feeding means.

5 5. The method of claim 1 wherein said step of sawing said first log at each of said pre-determined lengths to form said segments is carried out by dual saws pivotable across the line of travel of said first log.

6. The method of claim 5 wherein said dual saws are movable along
10 the axis of motion of said log.

7. The method of claim 5 wherein said second saw movable across the line of travel of said first log located downstream of said first saw and movable along the axis of motion of said log further comprises conveyor
15 means having an infeed portion and an outfeed portion separated by a gap movable in association with said second saw.

8. The method of claim 4 wherein said degree of tilting is approximately 7 degrees.
20

9. Apparatus for sawing a log into segments of a pre-determined length comprising:

- a) a first log-feeding means for feeding a log in an end-wise line of travel;
- 25 b) a second horizontally oriented log-feeding means adapted to receive said log from said first log-feeding means;
- c) first and second, vertically oriented log-feeding means, said first tilted, vertically oriented log-feeding means mounted for pivotal movement from a first non-log-engaging position to a
30 second log-engaging position;

- 5 d) power means for pivoting said first, vertically oriented log-feeding means from said first non-log-engaging position to said second log-engaging position and back to said first non-log-engaging position ;
- 10 e) dual multi-positional cut-off saws located upstream and downstream respectively of said second horizontally oriented log-feeding means, said dual saws being movable across the line of travel of said log on said second horizontally oriented log-feeding means;
- 15 f) means for measuring the distance traveled by said log while on said second tilted, horizontally oriented log-feeding means and communicating said measurement to a control means;
- 20 g) power means for moving said saw in response to a control signal;
- h) a third horizontally oriented log-feeding means adapted to receive said log from said second tilted horizontally oriented log-feeding means and lying in a horizontal plane slightly below the horizontal plane of said second tilted horizontally oriented log-feeding means; and
- 25 i) control means for receiving said measurement signal and communicating control signals to said power means for moving said saw and controlling said first and second tilted vertically oriented log-feeding means;
- 30 wherein said first and second vertically oriented log-feeding means are adapted to advance and stop said log in response to said control signal; and wherein said means for measuring the distance traveled by said log measures the advance of the log while on said second horizontal log-feeding means and communicates said measurement to said control means; said first and second vertically oriented log-feeding means stop the log at the desired length; said saw cuts the log to produce a forward log

BEST AVAILABLE COPY

segment; and said forward log segment is advanced onto said third horizontally oriented log-feeding means.

10. The apparatus of claim 9 wherein said first, second and third
5 horizontally oriented log-feeding means and said first and second vertically oriented log-feeding means are tilted to a degree sufficient to roll said log to one side of said log-feeding means.

11. The apparatus of claim 10 wherein said first, second and third
10 horizontally oriented log-feeding means are tilted approximately 7 degrees from the horizontal and said first and second vertically oriented logfeeding means are tilted approximately 7 degrees from the vertical.

12. The apparatus of claim 9 wherein said multi-positionable saws are
15 movable along the axis of motion of said log.

13. The apparatus of claim 9 wherein said means for measuring the
distance travelled by said log while on said second horizontally oriented
log-feeding means comprise hydraulic motors for driving said first and
20 second vertically oriented log-feeding means, having sensors for measuring the number of rotations of said motors.

14. The apparatus of claim 9 wherein said means for measuring the
distance travelled by said log while on said second horizontally oriented
25 log-feeding means comprises first sensing means for sensing the approach of said log to said first and second vertically oriented log-feeding means and causing said power means to pivoting said first log-feeding means into said log-engaging position, means for measuring the distance traveled by said log while engaged by said first and second vertically oriented log-
30 feeding means, and second sensing means for sensing when the front end

BEST AVAILABLE COPY

of said log reaches a position after said first and second vertically oriented log-feeding means.

15. The apparatus of claim 9 further comprising means for scanning said
5 log prior to said log being received on said second horizontal log feeding means.

16. The apparatus of claim 9 wherein said second horizontally oriented
10 log-feeding means comprises a powered hourglass roll and a tilted horizontally oriented bottom feed roll.

17. The apparatus of claim 9 wherein said first and second vertically
oriented log-feeding means comprise vertical feed rolls pivotally mounted
on the ends of arms, said first vertically oriented log-feeding means being
15 pivoted by said power means.

18. The apparatus of claim 9 further comprising sensing means
associated with said power means for pivoting said first vertically oriented
log-feeding means for generating a signal indicative of the diameter of the
20 log and communicating said signal to said control means.

BEST AVAILABLE COPY